

Attorney Docket # 4925-220PUS

Serial No. **10/089,899**

Amdt. dated June 11, 2004

Reply to Office Action dated February 12, 2004

REMARKS/ARGUMENTS

The Office Action mailed February 12, 2004 has been reviewed and carefully considered. Before entry of the present amendment, Claims 1-15 were pending, with Claims 1, 7, and 11 being in independent form. In the present amendment, Claims 1-15 have been amended either for reasons of clarity and/or consistency or to conform the claims to U.S. patent practice, and Claims 16-32 have been added. In response to the February 12, 2004 Office Action, previously dependent Claims 12 and 14 have been re-written in independent form in the present Amendment. The specification has been amended to correct minor errors. In addition, the specification has been amended to recite the priority claim which has already been submitted to, and acknowledged by, the U.S. Patent and Trademark Office (see Notification of Acceptance of Application under 35 U.S.C. 371 (PTO Form PCT/DO/EO/903) dated December 2, 2002). After entry of present Amendment, Claims 1-32 will be pending, with Claims 1, 7, 11, 12, 14, and 16 being in independent form.

In ¶2 of the Office Action, the Examiner objected to the disclosure under 37 CFR §1.71 as "being so incomprehensible as to preclude a reasonable search". The applicant believes Examiner is confused because of a misunderstanding of the present invention. The applicant further hopes that the description below may clarify the nature of the present invention so that the language of the specification may not seem confusing. However, if Examiner still believes the language in the specification is confusing, the applicant will follow any suggestions the Examiner would care to make concerning clarification of the text.

In ¶3 of the Office Action, the Examiner rejected Claims 1-15 under 35 USC §112, second paragraph, for indefiniteness. Specifically, the Examiner points to various examples of insufficient antecedent basis in the claims, which are believed to have been corrected in the present Amendment. Previously dependent Claims 12 and 14 were re-written in independent form to remove any indefiniteness problems.

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In addition, the Examiner rejected Claim 9 as indefinite because of his belief that the ""third block" should be second block" (Office Action, §3(i)). As should be clear from the explanation below, the "third block" in Claim 9 was correct. However, Claim 9 and the other claims have been amended to clarify the nature of the present invention, and it is hoped the description below will end any confusion.

The invention claimed in independent Claims 1, 7, 11, 12, 14, and 16 of the present application is directed to methods, systems, and devices for transmitting and/or receiving an arbitrarily sized sequence of data. In amended Claim 1, a first block having a first data portion of predetermined size M is transmitted, and then a second block having a second data portion of variable size S is transmitted. Although the size S varies, it is always less than predetermined size N . Thus, the first data portion is always of predetermined size M , and the second data portion is of variable size S less than N . Furthermore, the first transmission block also has a field which indicates T , the total length of the arbitrarily sized sequence of data to be sent.

The third transmission block, if any, and the blocks following the third block all have a data portion of size N , as is recited in amended Claim 5. Thus, if and only if T is greater than $(M+N)$, will a third transmission block be sent. In short, we have:

Size of First data portion (in first block) = constant M

Size of Second data portion (in second block) = variable S

Size of Third data portion (in third+ block) = constant N

Using such a method, the receiver will always know the size of the first data portion in the first transmission block. Furthermore, because the total length T is indicated in the first transmission block, the receiver can determine whether there will be any more transmission blocks following the first, the size of the second data portion in the second transmission block (if any), and the number of blocks following the second transmission block (if any). Thus, the receiver knows (i) the first data portion will always have size M ; (ii) the third data portion, if

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any, and any following the third data portion, will always have size N ; and (iii) the second data portion, if any, may vary in size, but it is the *only* data portion that will vary in size.

By having the variable-size "remainder" portion in the second transmission block, the system removes a potential source of uncertainty in the system. For example, in a system in which the "remainder" portion of a data sequence was in the last transmission block of the sequence, that variable sized block could be any block in the sequence (e.g., the second block could be the last, or the thirty-second block could be the last). However, in a system according to the present invention, the variable sized data portion will always be in the second transmission block. As another example, a system could have transmission blocks of a constant size, but that would require padding (in order to ensure the data portion is the constant size), and thus "excessive overhead for the transmission of short messages" (present application, page 2, lines 22-24). Furthermore, in such a system, the padded block could be any block in the sequence. By contrast, in a system according to the present invention, if there is to be any padding, it will only be in the very first block and only if the message is less than M in size.

It is hoped that the above description will clarify any points of confusion regarding the present application. Specifically, it is hoped that this clarifies that the length of the third data portion is indeed constant N , and the length of the second data portion is variable S .

Withdrawal of the objection to the disclosure and the §112, second paragraph, rejection of the claims is respectfully requested based at least on the basis of the foregoing amendments and comments.

In ¶¶5, 7, and 8 of the Office Action, the Examiner rejected Claims 1, 3, 5-7, 9, and 11-15 under either 35 USC §102(e) or 35 USC §103(a) as either anticipated by, or obvious over, at least one of *Petersen* (US 6,600,746), *Dutta* (US 6,463,040), and *Bharucha et al.* (US 6,345,056). However, as should be made clear by the present Amendment, independent Claims 1, 7, 11, 12, and 14 are neither taught nor suggested by any of *Petersen*, *Dutta*, and *Bharucha et al.*, either individually or in combination.

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At least because none of *Petersen, Dutta, and Bharucha et al.*, either individually or in combination, teaches or suggests the steps of (i) transmitting a first block comprising a first data portion from an arbitrarily sized sequence of data, said first data portion having a first predetermined length M; and (ii) transmitting a second block comprising a second data portion of the arbitrarily sized sequence of data, said second data portion having a length S less than a second predetermined length N, which limitations are recited in amended independent Claim 1, Claim 1 is patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination.

At least through their dependence on Claim 1, which is patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination, amended dependent Claims 2-6 are also believed to be patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination.

Withdrawal of the rejection of amended Claims 1-6 is respectfully requested.

At least because none of *Petersen, Dutta, and Bharucha et al.*, either individually or in combination, teaches or suggests a transmitter having (i) means for splitting an arbitrarily sized sequence of data to be transmitted into at least two portions, a first portion of said at least two portions having a predetermined size M, a second portion of said at least two portions having a variable length S which is less than a second predetermined length N; and (ii) means for indicating a total length of said arbitrarily sized sequence, wherein said indication is appended to said first portion and both are transmitted in a first block, and wherein said second portion is transmitted in a second block, which limitations are recited in amended independent Claims 7 and 12, Claims 7 and 12 are patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination.

At least through their dependence on Claims 7 and 12, which are patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination, amended dependent Claims 8-10 and 13 are also believed to be patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination.

Withdrawal of the rejection of amended Claims 7-10 and 12-13 is respectfully requested.

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At least because none of *Petersen, Dutta, and Bharucha et al.*, either individually or in combination, teaches or suggests a receiver of a microwave radio link system having (i) means for receiving and decoding a first transmission block comprising a first portion of an arbitrarily sized data sequence to be received; (ii) means for determining a total length of said arbitrarily sized data sequence on the basis of information in said first transmission block; (iii) means for determining a variable length *S* of a second transmission block to be received at least partly on the basis of said determined total length of said arbitrarily sized data sequence; and (iv) means for determining a number *F* of one or more third transmission blocks to be received, if any, which limitations are recited in amended independent Claims 11 and 14, Claims 11 and 14 are patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination.

At least through its dependence on Claim 14, which is patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination, amended dependent Claim 15 is also believed to be patentable over *Petersen, Dutta, and Bharucha et al.*, either individually or in combination.

Withdrawal of the rejection of amended Claims 11 and 14-15 is respectfully requested.

In ¶9 of the Office Action, the Examiner indicated that dependent Claims 2, 4, 8, and 10 would be allowable if rewritten to overcome the §112 rejections and to include all the limitations of the base claim and any intervening claims. However, it is believed that the independent claims of the present application are in condition for allowance, so such re-writing is considered unnecessary at present.

Claims 16-32 have been added in the present amendment, and they do not contain any new matter:

support for newly added independent Claim 16 may be found in the entirety of the originally filed application, including, for example, FIG. 2 and its description in the text from page 5, line 16, to page 6, line 28, of the originally filed specification;

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support for newly added Claim 17 may be found in the entirety of the originally filed application, including, for example, Claim 2;

support for newly added Claim 18 may be found in the entirety of the originally filed application, including, for example, Claim 4;

support for newly added Claims 19-20 and 22 may be found in the entirety of the originally filed application, including, for example, FIG. 1 and its description at lines 14-20 of page 1, line 14;

support for newly added Claim 21 may be found in the entirety of the originally filed application, including, for example, the text on lines 1-5 of page 2;

support for newly added Claim 23 may be found in the entirety of the originally filed application, including, for example, Claim 6;

support for newly added Claim 24 may be found in the entirety of the originally filed application, including, for example, the text on lines 23-27 on page 5;

support for newly added Claim 25 may be found in the entirety of the originally filed application, including, for example, the text on lines 32-33 on page 3, and lines 20-23 on page 4;

support for newly added Claims 26-28 may be found in the entirety of the originally filed application, including, for example, the text on lines 25-35 on page 7;

support for newly added Claims 29-30 may be found in the entirety of the originally filed application, including, for example, FIG. 2 and its description in the text from page 5, line 16, to page 6, line 28; and

support for newly added Claims 31-32 may be found in the entirety of the originally filed application, including, for example, Claim 1.

At least because none of the cited prior art teaches or suggests a method with the steps of (i) if the total length T of an arbitrarily sized sequence of data to be transmitted is greater than a first predetermined length M , transmitting a second transmission block with a second data portion of variable length S from the arbitrarily sized sequence of data, wherein S is less than a second predetermined length N ; and (ii) if the total length T is greater than the sum of M and N ,

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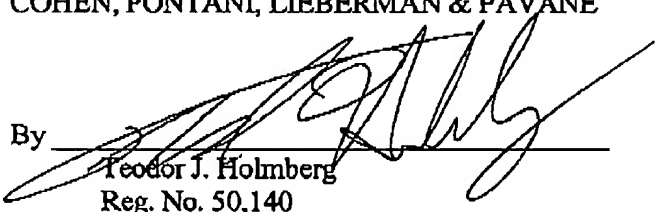
transmitting one or more third transmission blocks, each third transmission block having a data portion of length N from the arbitrarily sized sequence of data, which limitations are recited in newly added independent Claim 16, Claim 16 is patentable over the cited prior art, and is believed to be in condition for allowance. At least through their dependence on Claim 16, which is believed to be in condition for allowance, newly added dependent Claims 17-30 and 32 are also believed to be in condition for allowance. At least through their dependence on Claim 1, which is believed to be in condition for allowance, newly added dependent Claim 31 is also believed to be in condition for allowance. Allowance of newly added Claims 16-32 is respectfully requested.

At least on the basis of the foregoing, the allowance of all presently pending claims is respectfully requested.

Respectfully submitted,

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